

# 18th International Symposium on Epidemiology in Occupational Health Programme

Monday 12 September 2005

## Keynote session 1 — Globalisation, occupational epidemiology, research ethics

- K1.1 Research ethics in developing countries. *Y Mashalla*  
 K1.2 Pesticides in developing countries, research, and ethics. *I Wesseling*

## Oral session 1 — Work-related health

- O1.1 Variability in respirable dust exposure in a manually operated coal mine in Tanzania. *SHD Mamuya, M Bråtevit, J Mwaiselage, BE Moen*  
 O1.2 The use of health care services following a workplace injury: a study of workers and their families in British Columbia. *J Brown, H Shannon, P McDonough, C Mustard*  
 O1.3 Health-related job loss in three rural populations of England and Wales. *C Solomon, J Poole, KT Palmer, D Coggon*  
 O1.4 Correlates of mental health in Ontario workers: Results from the Canadian Community Health Survey. *M Fang, HS Shannon, VV Baba*  
 O1.5 Health Related Quality Of Life And Sick Leave Among Norwegian Navy Personnel. *N Mageroy, T Riise, BE Moen*

## Oral session 2 — Occupational cancer I

- O2.1 Estimating the number of lung cancer deaths in Great Britain due to asbestos exposure. *AJ Darnton, DM McElvenny, JT Hodgson*  
 O2.2 Exploring cancer risks among workers in the semiconductor industry in Taiwan. *GY Hsieh, JD Wang, TJ Cheng, PC Chen*  
 O2.3 Occupational chemical exposure and Non-Hodkin's Lymphoma. *L Fritsch, G Benke, AM Hughes, A Kricker, CM Vajdic, A Grulich, J Turner, S Milliken, J Kaldor, BK Armstrong*  
 O2.4 Non-Hodkin's Lymphoma and dermal exposure to penta- and tetrachlorophenols in sawmills. *PA Demers, MC Friesen, HW Davie, C Hertzman, S Marion, A Ostry, K Teschke*  
 O2.5 Colon cancer, serum omega-3 fatty acids, and agricultural work: a nested case control study in a national cohort of farmers. *KC Nordby, AT Høstmark, A Andersen, P Kristensen*

## Oral session 3 — Epidemiological methods and data analysis

- O3.1 Attributable fractions in multi-exposed: quantifying contributions of individual risk factors. *G E Eide, I Heuch*  
 O3.2 Meta-analysis in occupational epidemiology for rare disease outcomes: what to do when there are no exposed cases? *DM McElvenny, BG Armstrong*  
 O3.3 Exposure to a two component dust: longitudinal analysis of FVC using Gee models in a coalworker inception cohort followed 1974–98. *SF Büchte, P Morfeld, J Ambrosy, H Bicker, H Lenaerts, B Kalkowsky, J Pohlplatz, A Kösters, M Rüther, C Piekarski*  
 O3.4 Bladder cancer risk in sales workers: artifact or cause for concern? *A't Mannelte, N Pearce*  
 O3.5 Reliability and validity of a generic job exposure matrix applied to epoxy resin-exposed Mexican workers. *L Haro-García, G Celis-Quintal, P López-Rojas*

## Oral session 4 — Mortality studies

- O4.1 Silica dust exposure and non-malignant respiratory disease mortality among silicotic workers in Hong Kong: Exposure-response analyses. *LA Tse, ITS Yu*  
 O4.2 Cancer mortality among shipyard coastguard workers. *S Krstev, P Stewart, J Rusiecki, A Blair*  
 O4.3 Cohort study of military veterans exposed to chemical warfare agents in the UK Human Volunteer Programme at Porton Down: Progress report. *C Brooks, T Keegan, T Langdon, V Beral, P Doyle, T Fletcher, NM Maconochie, MJ Nieuwenhuijsen, LM Carpenter, KM Venables*  
 O4.4 Respiratory symptoms and dust exposure in a cohort of California farmers. *MB Schenker, K Lee, LA Beckett, DC Mitchell*

## Oral session 5 — Low back pain

- O5.1 Cardiovascular risk factors, strenuousness of work, and low back pain: a 28 year follow up of industrial employees. *P Leino-Arjas, S Salovieva, J Kirjonen, A Reunanen, H Riihimäki*  
 O5.2 Duration of exposure to physical work factors and various dimensions of low back pain in the Gazel cohort. *A Leclerc, E Renahy, JF Chastang*  
 O5.3 Epidemiology of lower back problems among South African steel workers. *B van Vuuren, E Zinzen, P Becker, HJ van Heerden, R Meeusen*  
 O5.4 Predicting the long term course of low back pain and its consequences for sickness absence and associated work disability. *A Burdorf, J Jansen*  
 O5.5 Is an imbalance between workload and physical capacity a risk factor of low back, neck, and shoulder pain? *BM Blatter, HH Hamberg-van Reenen, GAM Ariëns, W van Mechelen, PM Bongers*

## Poster session 1

- P1.1 Methodological and logistic issues regarding a study on mortality due to violence at work and work related injuries in Salvador, Bahia, Brazil. *LCC Nobre, M Kato, FM Carvalho*  
 P1.2 The quantitative risks of mesothelioma and lung cancer in relation to asbestos exposure: A comparison of models from two reviews. *AJ Darnton, DM McElvenny, JT Hodgson*  
 P1.3 Mesothelioma mortality in Great Britain from 1968 to 2001. *DM McElvenny, AJ Darnton, JT Hodgson*  
 P1.4 Occupational exposure and lung cancer in workers affiliated to the Mexican Institute of Social Security. *IJ García-Rojas, E Robles-Pérez, VH Borja-Aburto*  
 P1.5 Occupational exposure to hydrocarbons, heavy metals, pesticides, and electromagnetic fields associated to acute leukemia in workers affiliated to the Mexican Institute of Social Security. *E Robles-Pérez, I García-Rojas, V Borja-Aburto*  
 P1.6 Parental occupational exposure to carcinogens associated to acute leukemia in their children with down syndrome. *E Robles-Pérez, JM Mejía-Arangure, H Flores-Aguilar, MC Ortega-Alvarez, A Fajardo-Gutiérrez*  
 P1.7 Smoking And Clonal Chromosomal Aberrations In Lung Cancer Patients. Support For Specific Associations? *M Albin, A Oudin, J Björk, M Soller*  
 P1.8 Male lung cancer risk in industries in The Netherlands: results from a population based cohort study. *L Prellera, LE Voorrips, B Blatterb, PA Van Den Brandt, RA Goldbohm*  
 P1.9 Textile work and bladder cancer in Spain: duration and period of work. *C Serra, D Turuguet, M Kogevinas, F Fernandez, P Stewart, N Malats, D Silverman, N Rothman, A Tardon, R Garcia-Closas, A Carrato, G Castaño-Vinyals, M Dosemeci*  
 P1.10 Measurements of electric field onboard The Royal Norwegian Navy vessels Knm Terne and Knm Utvær. *O J Møllerlækken, B E Moen*  
 P1.11 A prospective study on mechanical work exposure and blood pressure in technical school students. *KB Veiersted, T Nordberg, M Wærsted, N Østerås, KMS Gould*  
 P1.12 Occupation and breast cancer: a case control study in Poland. *B Peplonska, A Blair, P Stewart, J Rusiecki, M Garcia-Closas, L Brinton, N Szeszenia-Dabrowska, J Lissowska*  
 P1.13 Work ability and psychosocial and organisational factors in nursing personnel in hospitals. *P Kiss, M De Meester, R Verpraet, S Stordeur, W D'Hoore, L Braeckman, NEXT Study Group*  
 P1.14 Assessment of posture by rula method in an electrical and electronic devices manufacturing company. *GN Saraji, MJ Fahool, F Golbabaei*

- P1.15 Evaluation of risk factors associated to work related musculoskeletal disorders of upper limbs extremity in an automobile manufacturing industry, Iran. *M Pourmahabadian, K Azam, M Ghafouri*
- P1.16 Predictive factors for incident musculoskeletal disorders in an in-plant surveillance program. *A Descatha, Y Roquelaure, J Mariel, B Evanoff, M Melchior, A Leclerc*
- P1.17 Incidence of carpal tunnel syndrome in a French area in 2002–03. *Y Roquelaure, C Ha, MC Pelier-Cady, E Imbernon, A Leclerc, M Goldberg*
- P1.18 Musculoskeletal disorders in podiatrists. *J Schreiber, E Wacławski, P Jeffrey*
- P1.19 A prospective study on physical activity, stress level, and musculoskeletal disorders in technical school students. *T Nordberg, K B Veiersted, M Wærsted, N Østerås, K M S Gould*
- P1.20 Prevalence musculoskeletal symptoms among hairdressers. *BE Hollund, BE Moen, T Morken*
- P1.21 Worker health status in Khon Kaen Province 2002–03. *N Chaiear, S Paileeklee, B Jindawong, K Yimtae, P Thanawiratnanij, B Thinkamrop, P Sakulkoo*
- P1.22 Associations of maternal employment with length of gestation and growth retardation: differences and similarities in Norway and Spain. *E Ronda, A Irgens, E Regidor, LM Irgens*
- P1.23 Reproductive disorders among male and female greenhouse workers. *R Bretveld, G Zielhuis, N Roeleveld*
- P1.24 Congenital malformations in children of obstetric nurses using nitrous oxide. *N Roeleveld, M Van Gelder*
- P1.25 Time to pregnancy among male greenhouse workers. *R Bretveld, S Kik, G Zielhuis, N Roeleveld*
- P1.26 Occupational diseases in Poland in the period of transformation of national economy. *N Szeszenia-Dąbrowska, U Wilczyńska*
- P1.27 Development of a questionnaire to measure work exposures in the New Zealand context. *R Lilley, H Firth, A-M Feyer, C Paul*
- P1.28 Evaluation of two self-administered questionnaires to ascertain dermatitis among metal workers and its relation with exposure to metal working fluids. *B van Wendel de Joode, R Vermeulen, D Heederik, CJ Van Ginkel, H Kromhout*
- P1.29 Improvement of health gradient in workers who participated in a physical training program. *IJ Garcia-Rojas, MC Ortega, E Robles-Perez, J Sandoval*
- P1.30 Impact of a prevention program on the prevalence of low back pain in nursing personnel. *F Gobba-4, S Martinelli, G Artioli, M Vinceti, M Bergomi, L Roccatto*
- P1.31 A comparison of the effect of two methods of HIV/AIDS health education on knowledge and attitudes of workers in a chemical industry in Tehran. *D Shojaeizadeh, N Ghrbanzadeh, E Shojaeizadeh*
- P1.32 The awakening cortisol response and psychosocial factors. *NH Eller, B Netterstrøm, AM Hansen*
- P1.33 Allergenicity of macroorganisms used for biological control. *J Baelum, P Larsen, G Doekes, PSS Skov, T Sigsgaard*

#### Minisymposium 1 — Pesticides

- M1.1 Neurological symptoms and past use of pesticides. *C Solomon, J Poole, KT Palmer, R Peveler, D Coggon*
- M1.2 Plasma organochlorine pesticides level and risk of major lymphoma subtypes. *P Cocco, MG Ennas, A Ibba, MG Tocco, S de Sanjose, A Nieters, M Maynadie, A Meunier, P Boffetta, N Becker, P Brennan*
- M1.3 Exposure to pesticides and immunological effects in corn farmers in Iowa. *B Bakke, AJ De Roos, A Blair, L Pinto, PP Gillette, CF Lynch, DB Barr, RH Allen, MC Alavanja, R Vermeulen*
- M1.4 Pesticide exposure and neurobehavioral impairment: Results of the 4 year follow up of the PHYTONER Study. *I Baldi, A Cantagrel, J Jeanpetit, P Lebailly, C Fabrigoule, P Brochard*
- M1.5 Agricultural activities and pesticide exposure: elaboration of a matrix for use in epidemiological studies. *I Baldi, M Barrau, A Cantagrel, E Niez, P Fabbro-Peray, P Lebailly*
- M1.6 Acute pesticide poisoning among small farmers in Bolivia. *E Jors, R Cervantes, G Condarco, O Huici, F Lander, F Konradsen, J Baelum*

#### Minisymposium 2 — Maritime epidemiology

- M2.1 Self-reported health among former North Sea divers. *Å Irgens, M Grønning, K Troland, E Sundal, F Gøpken, SHG Nordahl, H Nyland, H Skeidsvoll, E Thorsen*

- M2.2 Non-fatal occupational injuries related to slips, trips, and falls in seafaring. *OC Jensen, JFL Sørensen, ML Canals, Yunping Hu, N Nikolic, AA Mozer*
- M2.3 Obtaining insight in health, safety, and environment culture in a petroleum company in Norway. *D Høivik, BE Moen*
- M2.4 The establishing of the Norwegian offshore oil worker cohort: A cohort for prospective cancer incidence and mortality studies. *LA Strand, A Andersen*
- M2.5 Exposure to oil vapour and oil mist during offshore drilling. *K Steinsvåg, M Bråveit, BE Moen*
- M2.6 Morbidity among seamen: the Danish seafarer, fishermen, and long distance drivers' health and early retirement study. *L Kaerlev, A Jensen, P S Nielsen, J Olsen*

#### Oral session 6 — Work organisational and psychosocial factors I

- O6.1 Time pressure as a determinant for chemical exposure: experience from an epidemiological study on health effects from acrylamide exposure among tunnel workers. *H Kjuus, LO Goffeng*
- O6.2 Is workers' compliance with health and safety routines influenced by social and organisational work factors? A multilevel study. *S Torp, JB Grøgaard*
- O6.3 Socioeconomic status and working conditions as predictors of mental health. *M Cifuentes, L Punnett, R Gore, J Boyer, J Tessler, A D'Errico*
- O6.4 Factors associated with work ability of cancer survivors and their referents. *T Taskila, R Martikainen, P Hietanen, M-L Lindbohm*
- O6.5 Occupational injury rates in relation to socioeconomic status and hospital working conditions. *A d'Errico, L Punnett, M Cifuentes, J Boyer, J Tessler*
- O6.6 Psychosocial factors at work and myocardial infarction risk among women in Kaunas, Lithuania. *V Malinauskienė, A Azaraviciene*
- O6.7 A casecontrol study with crossover design of patients in a register of myocardial infarction and registered urban pollution data. *B Hilt, BO Berthelsen, RE Govatsmark, T Qvenild, S Slørdahl, K Svendsen, P Romundstad*

#### Oral session 7 — Disease and injury surveillance I

- O7.1 Time trend in the occurrence of latex related occupational diseases in Germany 1996–2003. *U Latza, F Haamann, X Baur*
- O7.2 Carpenters as partners in injury surveillance and prevention. *HJ Lipscomb, J Nolan, D Patterson*
- O7.3 Occupationally related eye injuries: could they be avoided? *N Bull, G Høvdig, T Riise, BE Moen*
- O7.4 Occupational obstructive airway diseases in Germany: frequency and causes in an international comparison. *U Latza, X Baur*
- O7.5 Atemia: a new occupational allergen? *J-T Granslo, TB Aasen, Å Irgens, E Florvaag*
- O7.6 Epidemiological surveillance of musculoskeletal disorders in the Pays de la Loire region using the SALTSA method. *Y Roquelaure, C Ha, M Sauteron, A Touranchet, A Leclerc, E Imbernon, M Goldberg*

#### Oral session 8 — Occupational cancer II

- O8.1 Gender differences of bladder cancer risk in Spanish textile workers. *C Serra, M Kogevinas, D Turuguet, F Fernandez, P Stewart N Malats, D Silverman, N Rothman, A Tardon, R Garcia-Closas, A Carrato, G Castaño-Vinyals, M Dosemeci*
- O8.2 Pancreatic cancer mortality among Belorussian tannery workers. *I Veyalkin*
- O8.3 Incidence of testicular tumours in a cohort of car manufacturing workers. *W Ahrens, W Schill, A Gottlieb, J Weiß, W Dahlke, B Marschall*
- O8.4 Bladder cancer in perfluorooctanesulfonyl fluoride manufacturing workers. *BH Alexander, GW Olsen*
- O8.5 Multiple cancers among workers exposed to red, grey, and black granite dust. *R-S Koskela, P Mutanen, J-A Sorsa, M Klockars*
- O8.6 Exposure to silica dust and lung cancer mortality among silicotic workers in Hong Kong: Exposure-response analyses. *ITS Yu, LA Tse*

#### Keynote session 2 — Methodological approaches in occupational epidemiology

- K2.1 Person time at risk: an old idea and a unifying concept. *D Loomis*

- K2.2 Bias from dependent misclassification in occupational epidemiology. *P Kristensen*
- K2.3 Case control studies of low exposures to benzene: a data consistency review. *BG Miller, W Fransman, H Kromhout, JF Hurley, D Heederik, E Fitzsimons*

#### Oral session 9 — Exposure assessment

- O9.1 Evaluation of workers' exposure to methylene diphenyl diisocyanate in an automobile manufacturing company, Iran. *SJ Shahtaheri, H Kakooei, H Karbasi*
- O9.2 More or less exposed during the follow up of the ECRHS. *H Kromhout, R Vermeulen, J-P Zock, M Kogevinas and for the ECRHS II occupational working group*
- O9.3 Graphical evaluation tool for retrospective quantitative exposure assessment and assignment. *W Fransman, B Miller, F Hurley, D Heederik, H Kromhout*
- O9.4 Specificity of exposure metric in dose-response relations in a retrospective aluminium smelter cohort. *MC Friesen, PA Demers, JJ Spinelli, M Lorenzi, ND Le*
- O9.5 Assessing occupational exposures to 21 agents in a large interdisciplinary case control study of bladder cancer in Spain. *M Dosemeci, S Camarero, C Samanic, M Kogevinas, D Silverman, N Malats, N Rothman, C Serra, A Tardon, R García-Clossas, A Carrato, PA Stewart*
- O9.6 Exposure to dust and sulphur dioxide in the Norwegian silicon carbide industry. *S Færevland, E Bye, W Eduard*
- O9.7 Particle exposure assessment for the US trucking industry. *TJ Smith, P Reaser, J Hart, J Schauer, F Laden, E Garshick*

#### Oral session 10 — Respiratory disorders

- O10.1 Inhalation accidents and new-onset asthma in an international general population study. *M Kogevinas, JP Zock, JM Anto, E Plana, D Norback, P Blanc, K Toren, K Radon, H Kromhout, D Jarvis, on behalf of the ECRHS-II Occupational Asthma Working Group*
- O10.2 Short-term respiratory effects of occupational exposures in domestic cleaning women. *JP Zock, M Medina-Ramón, M Kogevinas, J Sunyer, X Basagaña, J Schwartz, JM Antó*
- O10.3 Formaldehyde exposure and respiratory symptoms in New Zealand Plywood Mill workers. *D McLean, M Prause, W Fransman, N Travier, J Douwes, N Pearce*
- O10.4 Chronic bronchitis among pulp mill workers exposed to gassings. *E Andersson, S Hagberg, A Knutsson, K Torén*
- O10.5 Exposure levels of flour dust in bakeries: relationship to nasal/bronchial symptoms, nasal  $\alpha$ 2-macroglobulin/ECP, and nasal exudative responsiveness to histamine. *T Storaas, L Årdal, TV Do, E Florvaag, SK Steinsvåg, Å Irgens, TB Aasen, L Greiff*
- O10.6 Short-term changes in peak expiratory flow following cement dust exposure in non-smoking factory workers. *J Mwaiselage, M Bråtevit, B Moen, Y Mashalla, S Mamuya*
- O10.7 Asthmatics on sick leave: a study from mid Norway about work relatedness. *H L Leira, U Bratt, S Slåstad*

#### Oral session 11 — Musculoskeletal disorders I

- O11.1 Relationships between neck pain and work: what can we learn from gender based analyses of the 1998 Quebec Social and Health Survey? *S Stock, F Tissot, K Messing*
- O11.2 The burden of upper limb musculoskeletal disorders due to work related factors: results from the French Pays de la Loire study. *M Melchior, Y Roquelaure, B Evanoff, JF Chastang, C Ha, A Leclerc, the Pays de la Loire Group*
- O11.3 Feasibility of a job exposure matrix for exposure assessment in studies of work related musculoskeletal disorders of the upper extremity. *B Evanoff, Y Roquelaure, A Gueguen, M Melchior, C Ha, A Descatha, A Leclerc, the Pays de la Loire Group*
- O11.4 Use of upper limb musculoskeletal disorders questionnaires for an in-plant surveillance programme. *A Descatha, Y Roquelaure, J Mariel, B Evanoff, M Melchior, A Leclerc*
- O11.5 Validation of a questionnaire to assess risk factors and complaints related to upper extremity disorders. *EM Speklé, MJM Hoozemans, AJ van der Beek, B Blatter, PM Bongers, JH van Dieën*
- O11.6 Effort/reward imbalance and overcommitment in relation to neck and upper extremity symptoms. *SG van den Heuvel, AJ van der Beek, HC Boshuizen, S Mikkelsen, JP Bonde, PM Bongers*
- O11.7 Epidemiology of work-related musculoskeletal disorders in Apulia. *G Assennato, A Lo Izzo, L Bisceglia, M Massari, R Attimonelli, G de Nichilo, L Vimercati*

#### Oral session 12 — Radiation

- O12.1 Radiation exposure from work related medical x rays at the Portsmouth Naval Shipyard. *R Daniels, T Kubale, H Spitz*
- O12.2 A nested case control study of leukemia and ionising radiation at the Portsmouth Naval Shipyard. *T Kubale, R Daniels, J Yiin, G Kinnes, J Couch, M Schubauer-Berigan, S Silver, S Nowlin, P Chen*
- O12.3 Workers exposed to low doses of ionising radiation: a review. *M Telle-Lamberton*
- O12.4 Updated mortality in the French cohort of uranium miners: 1946–99. *B Vacquier, D Laurier, A Rogel, S Caer, B Quesne, M Tirmarche*
- O12.5 Mortality among French Cogema workers monitored for external ionising radiation exposure. *E Samson, M Hitz, A Rogel, S Caer, B Quesne, M Telle-Lamberton, C Flamant, JM Gelas, M Tirmarche*
- O12.6 Risk of liver cancer among East German uranium miners: results of a case control study. *M Möhner, R Misch, M Lindtner, H Otten, H-G Gille*
- O12.7 No association between urinary 6-sulfatoximetabolite and 50 Hz magnetic field exposure in workers. *F Gobba, M Scaringi, L Roccatto*

#### Oral session 13 — Reproduction

- O13.1 Fertility and exposure to solvents among families in the Agricultural Health Study. *M Sallmén, DD Baird, JA Hoppin, A Blair, DP Sandler*
- O13.2 Time to pregnancy among women in dental care work. *M-L Lindbohm, M Sallmén, P Ylöstalo, M-L Henriks-Eckerman, T Nurminen, H Oksanen, H Forss, H Taskinen*
- O13.3 Occupational exposures and semen quality: A birth cohort study. *RM Agius, T Farragher, DS Irvine, A Lee, RM Sharpe, M van Tongeren, P Warner*
- O13.4 Reproductive disorders and birth defects in offspring among male painters exposed to organic solvents. *M Hooiveld, W Haveman, K Roskes, I Burstyn, N Roeleveld*
- O13.5 Congenital malformation in children and occupational exposure of parents. *NF Izmerov, GI Tikhonova, NV Lebedeva*
- O13.6 The adverse reproductive outcome in women sterilising staff exposed to ethylene oxide in public hospitals in South Africa. *D Gresie-Brusin, D Kielkowski, A Baker and D Rees*
- O13.7 Reduced fertility among female hairdressers. *V Baste, T Riise, BE Hallund, BE Moen*

#### Poster 2

- P2.1 Exposure-response relationship between occupational endotoxin exposure and bronchial symptoms among male cotton textile workers. *U Latza, M Oldenburg, X Baur*
- P2.2 The effect of coal dust exposure on respiratory systems of coal mine workers in Iran. *H Kakooei, MB Delkosh, AA Kakooei*
- P2.3 Cotton dust exposure, respiratory symptoms, and peak respiratory flow rate in textile workers. *M Ghasemkhani, F Ghardashi, K Azam*
- P2.4 Comparison Of characteristics of occupational asthma according to mechanism and molecular weight of the causal allergens. *A Descatha, H Leproust, JC Pairon, D Choudat, R Garnier, J Ameille*
- P2.5 Monitoring of potential acute respiratory effects among Norwegian airport workers exposed to de-icing mist. *TE Danielsen, AM Stangeland, K Halgard, P Søstrand*
- P2.6 Isocyanate use in the UK. *H Cowie, GW Hughson, KS Creely, MK Graham, PA Hutchison*
- P2.7 Occupational related health problems in the sisal industry. *A Kayumba, M Bråtevit, W Eduard, BE Moen*
- P2.8 Prevalence of allergy amongst hospital staff in Thailand. *N Chaiear, W Anuntakul, Y Juanpolngarm, R Jirakarnwisarn, S Pattarapreuksa, S Reanpumikarmkit, C Inthawong*
- P2.9 Airway inflammation in waste collectors exposed to bioaerosols assessed by induced sputum. *KK Helda, W Eduard, AS Halstensen, J Thorn, TS Halstensen*
- P2.10 Occupational hearing loss in the petroleum industry. *T Morken, M Bråtevit, BE Moen*
- P2.11 Occupational cancer in Poland In 1971–2004. *U Wilczyńska, N Szeszenia-Dąbrowska*
- P2.12 A population based cohort study of the effect of common mental disorder on disability pension awards. *A Mykletun, S Øverland, AA Dahl, S Krokstad, O Bjerkeset, N Glozier, LE Mrcpsych, LE Aarø, M Prince*

- P2.13 Working life expectancies: an overview with an application to Finland. *M Nurminen, T Nurminen*
- P2.14 Indirect adjustment for smoking: issues in a retrospective occupational cohort study on lung cancer. *CB Trent, D Loomis*
- P2.15 Hepatitis B infections in hairdressers: analysing health insurance data. *A Nienhaus, A Seidler*
- P2.16 *Helicobacter pylori* infections in gastroenterologists. *A Nienhaus, S Brandenburg, A Seidler*
- P2.17 Health implications of occupational exposure to anaesthetics in health care workers. *E Danulescu, C Cozmei, D Constantinescu, M Ghitescu, V Cazuc, R Danulescu, F Gradinariu R Danulescu, R Danulescu*
- P2.18 Exposure to dioxins among incinerator workers: validating self-report based exposure indices. *I Mori, Y Ogawa, S Koda, S Kumagai, M Ueno*
- P2.19 Canaries of the sky. Commercial aircraft cabin air contamination and air crew disability: a case series. *A Harper*
- P2.20 Work related accidents and occupational diseases in veterinary assistants. *A Nienhaus, I Fincke*
- P2.21 Occupational exposure to pesticides and semen quality. *R Bretveld, LVD Hoven, A Wetzels, J Schinkel, E Tielemans, N Peer, G Zielhuis, N Roelvelde*
- P2.22 Association of allergic rhinitis and asthma with use of pesticides among grape farmers in Crete. *L Chatzi, A Alegakis, N Tzanakis, N Sifakas, C Lionis*
- P2.23 Acute and subacute poisoning incidence in pesticide exposed agricultural workers. *Palacios NME, Olaiz FGA, Garcia DLTG*
- P2.24 DNA polymorphisms in CYP3a5 and GSTP1 genes are associated with an increased risk of DNA damage in pesticides exposed fruit growers. *RH Wong, YJ Liu, PL Huang, YF Chang, YH Chiou, ZL Xu*
- P2.25 The epidemiology of workplace solvent exposures. *J Lu*
- P2.26 Occupational exposure to xylene in pathologists employed at hospitals, Qazvin City, Iran. *SJ Shahataheri, M Afshar, M Majedi*
- P2.27 Changes in exposure assessment with different levels of information. *P Stewart, S Krstev, A Blair*
- P2.28 Evaluation of different methods for sampling of wood dust. *F Golbabaie, A Tirgar, M Mahmoudi, SJ Shahataheri*
- P2.29 Exposure to monoterpenes in the Danish furniture industry. *G Jacobsen, V Schlünssen, K Hagstrom, AB Mikkelsen, I Schaumburg, og T Sigsgaard*
- P2.30 Hematological profile in Mexican workers exposed to benzene-toluene-xylene: preliminary outcomes. *L Haro-García, CA Juárez-Pérez, E Navarrete-Cadena, ME Hernández-Valerio, S Guerrero-Rivera*
- P2.31 Exposure of incinerator and home electric appliances recycling workers to dioxins and brominated diphenyl ethers. *Y Ogawa, R Yoshida, I Mori, H Saito, Y Kitamura, M Hirata, K Ohba, Y Matsumoto*
- P2.32 Noise pollution at central area of Tehran. *N Mansouri, M Pourmahabadian*
- P2.33 An update on the status of the mortality survey of British asbestos workers. *L Jones, D Morgan*
- P2.34 A quality based critical review of the literature describing and evaluating programs designed to prevent needlestick injuries. *S Sulsky, T Birk, L Cohen, M Heidenreich, R Luippold, A Nold*
- P2.35 A healthy houseworker effect: on women's involvement in domestic labour. *RR Habib, M Hamdan, I Nuwayhid, F Odaymat*

#### Minisymposium 3 — Use of questionnaires in different cultures and occupational contexts

- M3.1 Subjective Health Complaints. *HR Eriksen, H Ursin*
- M3.2 Do questionnaires help in Antarctic medical practise? *IC Grant, PT Marquis, H Ursin*
- M3.3 Myths about lifestyle and health of taxi drivers: true or false? *TH Tveito, M Odeen, HR Eriksen*

#### Oral session 14 Musculoskeletal disorders II

- O14.1 Epidemiology of low back and neck-shoulder pain among industrial workers in Iran: experience from developing country. *M Ghaffari, A Alipour, AA Farshad, I Jensen, E Vingard*
- O14.2 Work related musculoskeletal disorders in the Norwegian petroleum industry. *T Morken, BE Moen*
- O14.3 Physicians' assessment of work attribution in reported cases of musculoskeletal disorders. *Y Chen, R Agius, R McNamee, S Turner*

- O14.4 Rationale for a multidisciplinary intervention model in preventing musculoskeletal disorders in nursing personnel. *E Zinzen, P Van Roy, W Duquet, JP Clarys*
- O14.5 Cost effectiveness of physical training for self-employed persons with musculoskeletal disorders: the Fysioke study design. *J Heinrich, BM Blatter, JR Anema, PM Bongers*
- O14.6 Are workers at risk for hand-arm and neck-shoulder symptoms when using computers for long duration? A systematic review. *SI Jmker, M Huysmans, BM Blatter, AJ Van der Beek, W Van Mechelen, PM Bongers*

#### Minisymposium 4 — Bioaerosols and respiratory health

- M4.1 Atopic and non-atopic responses to fungal spores in animals and humans. *W Eduard*
- M4.2 Can occupational exposure to microbial agents reverse allergic immune responses? *J Douwes, N Pearce*
- M4.3 Bioaerosol exposure and COPD: is there a link and what are the likely mechanisms? *D Nowak, K Radon*
- M4.4 How variable is the atopic immune response? *D Heederik*
- M4.5 The role of non-allergic inflammation in bioaerosol induced respiratory disease. *T Sigsgaard*

#### Oral session 15 — Data analysis

- O15.1 The application of statistical tests to clinical diagnostics. *M Boggess, M Guest, J Attia, C D'Este, A Brown*
- O15.2 Investigating colour vision impairment in aircraft maintenance technicians. *M Guest, J Attia, C D'Este, A Brown, M Boggess*
- O15.3 Impact of uncertainties associated with radon exposure in dose-response analyses among uranium miners. *A Rogel, V Erzen, M Tirmarche, D Laurier*
- O15.4 On the lability of odds ratios. *DC Glass, CN Gray, D. Jolley, C Gibbons, MR Sim*
- O15.5 Two-stage methods for population based studies: introducing multiple exposure categories and confounding factors. *A Oudin, J Björk, U Strömberg*

#### Minisymposium 5 — Research ethics

- M5.1 Data protection and informed consent: a threat to workers' health. *T Norseth*
- M5.2 Exposure and health effects among workers in the Norwegian silicon carbide industry. *MD Bugge*
- M5.3 Balancing public interests against individual disadvantages using personal data in epidemiological research. *KW Ruyter*
- M5.4 Research ethics with special reference to biobanks. *P Westerholm*

#### Keynote session 3 — Women at work

- K3.1 Treatment of women, sex, and gender in occupational epidemiological research. *K Messing*
- K3.2 Cancer incidence among nurses in Norway. *JAS Lie, K Kjørheim*

#### Oral session 16 — Agriculture

- O16.1 Skin symptoms and work related skin symptoms among grape farmers in Crete, Greece. *L Chatzi, A Alegakis, S Krüger, C Lionis*
- O16.2 Occupational injuries in agricultural workers. *C Solomon, J Poole, KT Palmer, D Coggon*
- O16.3 Cancer risk in a prospective cohort of farmers in Normandy: results on mortality and incidence for the 1995–99 period. *P Lebaillly, V Loyant, E Niez, D Pottier, I Baldi, N Desoubreux, C Chauveau, V Bastard, A Vieville, AV Guizard, M Henry-Amar, P Gauduchon*
- O16.4 The use of medicine among farmers. *HU Barnes, T Riise*
- O16.5 Pesticide use and the health of farmers. *N Cherry, A Senthilselvan, J Beach, I Burstyn*

#### Minisymposium 6 — Women's health

- M6.1 Interaction between hazard exposures and organisational factors in women's occupational illnesses in manufacturing industries. *JL Lu*
- M6.2 Lifestyle, harassment at work, and self-assessed health of female flight attendants, nurses, and teachers in Iceland. *HK Gunnarsdóttir, H Sveinsdóttir, JG Bernburg, H Friðriksdóttir, K Tómasson*
- M6.3 Women at Norwegian women's shelters: their experiences of violence, their health related quality of life, and employment. *K Alsaker*
- M6.4 Increased standardised incidence ratio of breast cancer for female electronic workers potentially exposed to trichloroethylene. *T-I Sung, P-C Chen, L Jyuhn-Hsiann Lee, Y-P Lin, J-D Wang*



- M6.5 Lung cancer risk and workplace exposures among Chinese women in Hong Kong. *YL Chiu, ITS Yu*

#### Oral session 17 — Biomarkers

- O17.1 The dose-response relationship between benzene and peripheral blood cell counts. *R Vermeulen, Q Lan, L Zhang, GL Li, M Shen, SM Rappaport, S Kim, S Waidyanatha, Lin Yu-Sheng, RB Hayes, M Linet, W Guo, S Yin, N Rothman, MT Smith*
- O17.2 Biological monitoring of benzene exposure during tank work on an oil production ship on the Norwegian continental shelf. *J Kirkeleit, BE Moen, M Bråtevit, T Riise, BE Hollund*
- O17.3 Plasma level of PCB congeners and risk of major lymphoma subtypes. *P Cocco, MG Ennas, A Ibba, MG Tocco, S de Sanjose, A Niefers, M Maynadié, A Meunier, P Boffetta, N Becker, P Brennan*
- O17.4 Impaired sperm chromatin integrity in relation to serum PCB-153 and P'-DDE levels in European and Inuit populations. *G Toft, M Spanò, A Giwercman, L Hagmar, J Ludwicki, V Zvezday, JP Bonde, the INUENDO research group*
- O17.5 Non-invasive tear film break up time and eye blink time: biomarker for exposure and effect in indoor climate. *JV Bakke, BE Moen*

#### Oral session 18 — Work organisational and psychosocial factors II

- O18.1 Shiftwork: the association between sleep quality and health complaints. *V Rini, K Philippe, M Ina, G Inge, V Isolde, B Lutgart*

- O18.2 Work-related stress assessment in a vegetable oil production industry, Iran. *K Azam, M Pourmahabadian, A Rezaeian*
- O18.3 Burnout in medical residents in Mexico City. *R Toral-Villanueva, G Aguilar-Madrid*
- O18.4 Socioeconomic status and job strain as predictors of survey response. *M Cifuentes, L Punnett, R Gore, J Boyer, J Tessler, A D'Errico*
- O18.5 Occupational stress after primary treatment for cancer: A comparative study. *SB Gudbergsson, SD Fosså, B Sanne, AA Dahl*

#### Oral session 19 — Disease and injury surveillance II

- O19.1 Attribution of causes for workplace injuries. *HS Shannon, CA Smith, SS Geldart, L Lohfeld*
- O19.2 Diagnostic models for workers exposed to high molecular weight allergens. *D Heederik, E Suartha, Y Vergouwe, M Nieuwenhuijsen, D Heederik, DE Grobbee, E Meijer*
- O19.3 Years of life lost in ferrous metallurgy workers caused by hazardous occupational factors. *N Izmerov, T Yakovleva, N Golovkova, G Tikhonova*
- O19.4 Who works where? Building capacity for occupational disease and injury surveillance in British Columbia, Canada. *M Koehoorn, K McGrail, K Teschke, J Aghajanian*
- O19.5 How valid is self-reported work relatedness of health problems? A comparative study of self-reported and expert assessed work relatedness. *IS Mehlum, H Kjuus, KB Veiersted, E Wergeland*